



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/617,441	07/14/00	KAWATA	106310

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MM92/1018

EXAMINER
BROCK H.F.

ART UNIT	PAPER NUMBER
2815	

DATE MAILED: 10/18/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/617,441

Applicant(s)

KAWATA, HIROTAKE

Examiner

Paul E Brock II

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 9-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 July 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse of Species II in Paper No. 7 is acknowledged. The traversal is on the ground(s) that "the subject matter of all species is sufficiently related that a thorough search for the subject matter of any one species would encompass a search for the subject matter of the remaining species." This is not found persuasive because the applicant has not stated on the record how each individual species would be encompassed under the same search. If the applicant makes a statement on the record that the species are obvious variants of each other than the restriction requirement will be withdrawn.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 9 – 19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

The applicant has pointed out that at least claim 1 reads on the elected species. Specifically which claims read on the elected species has not been pointed out. It has been determined that claims 1 – 8 read on Species II.

### ***Drawings***

3. Figures 4 and 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear if “a semiconductor layer” in claims 2 and 3 is the same as the “a semiconductor region” in claim 1, or if claims 2 and 3 are defining a second semiconductor.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 and 3 - 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakazawa et al. (USPAT 5614730, Nakazawa).

Nakazawa discloses in figures 19a – 19c and 20 an electro-optical device. Nakazawa discloses in figures 19a – 19c and 20 a substrate (109). Nakazawa discloses in figures 19a – 19c and 20 a plurality of scanning lines (101) provided on the substrate. Nakazawa discloses in figures 19a – 19c and 20 a plurality of data lines (108) crossing the plurality of scanning lines. Nakazawa discloses in figures 19a – 19c and 20 a plurality of transistors formed with gate electrodes (113) having ends in a gate-width direction and ends in a gate-length direction, each

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transistor being connected (1906 and 1904, respectively) to one of the scanning lines and one of the data lines. Nakazawa discloses in figures 19a – 19c and 20 pixel electrodes (107) connected (1905) to the transistors. Nakazawa discloses in figures 19a – 19c and 20 at least one portion of the ends in the gate-width direction of the gate electrodes forming the transistors being disposed in a semiconductor region (102) forming the transistor, and the ends in the gate-length direction of each of the gate electrodes extending outside of the semiconductor region forming the transistor.

With regard to claim 3, Nakazawa discloses in column 4, lines 3 – 12 the semiconductor region forming the transistor comprises polycrystalline silicon.

With regard to claim 4, Nakazawa discloses in column 3, line 57 the substrate being an insulative substance.

With regard to claim 5, Nakazawa discloses in column 3, line 57 the substrate being an quartz substrate.

With regard to claim 6, Nakazawa discloses in column 3, line 57 the substrate being an glass substrate.

With regard to claim 7, Nakazawa discloses in figure 23b a second substrate (313) disposed opposing a surface of the first substrate. Nakazawa discloses in figure 23b liquid crystals (312) sandwiched by the first substrate and the second substrate, and driven by transistor elements formed on the semiconductor layers.

*Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakazawa as applied to claim 1 above, and further in view of one of ordinary skill in the art.

Nakazawa does not disclose the semiconductor region forming the transistor comprises monocrystalline silicon. Monocrystalline silicon is a well known material to form a semiconductor region with. It would have been obvious to one of ordinary skill in the art at the time of the present invention to use monocrystalline silicon as the semiconductor for the transistor of Nakazawa in order to improve the channel characteristics.

With regard to claim 8, it has been held in *In re Pearson* 181 USPQ 641 (CCPA) that intended use does not avoid prior art. Therefore, it would have been obvious to use the device of claim 1 as an LCD projector.

*Conclusion*

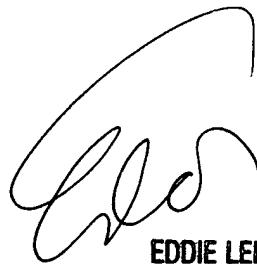
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kim, Nishihara et al. and Hack et al. disclose liquid crystal displays with separate gates and data lines.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul E Brock II whose telephone number is (703)308-6236. The examiner can normally be reached on 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703)308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7722 for regular communications and (703)308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Paul E Brock II  
October 16, 2001



**EDDIE LEE**  
**SUPERVISORY PATENT EXAMINER**  
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